

ABSTRACT OF THE DISCLOSURE

An optical arrangement (10) comprising a first beam splitter (12) for transmitting light of a first polarization, to provide a first beam, and reflect light of a second polarization; a first spectral filter (16) in optical alignment with the first beam, the filter (16) being adapted to return a second beam thereto; and a first polarization rotator (14) in optical alignment with the beam splitter (12) and the spectral filter (16) for effecting a rotation of the polarization of the second beam relative to the first beam whereby the second beam has the second polarization and is reflected by the beam splitter (12). In a specific implementation, the spectral filter (12) may be a Bragg grating, a quarter-wave plate (22), a Faraday rotator (32) or other suitable device. If a Faraday rotator is used, a polarization adjuster (34) is used in optical alignment therewith. A number of alternative embodiments are disclosed. In a first alternative embodiment, a second polarization rotator (44) is disposed in optical alignment with the first beam splitter (12) for effecting a rotation of the polarization of the light reflected from the beam splitter (12) to provide a third beam. In one variant a second spectral filter (48) is disposed in alignment with the second polarization rotator (44). In another variant, the first spectral filter (52) is adapted to receive the third beam. In another embodiment, a second beam splitter (68) is disposed between the second Faraday rotator (64) and the spectral filter (16).